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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/582,269

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EXAMINER

ROE, CLAIRE LOUISE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/582,269	Applicant(s) KOBUCHI ET AL.	
	Examiner CLAIRE L. ROE	Art Unit 1727	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2011.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 2-4, 6-11, and 33-34 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 2-4, 6, 8 and 9 is/are rejected.
- 8) ☒ Claim(s) 7, 10-11, and 33-34 is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☒ The drawing(s) filed on 09 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Response to Amendment

1. This office action is in response to the amendment filed on December 27, 2011. Claims 2-4, 6-11, and 33-34 are pending. Claims 2-3, 6, 8-9, and 33-34 are pending and are rejected for reasons of record. Claims 4, 7, and 10-11 are objected to for depending from rejected claims. Claims 2 and 6 have been amended. Claims 1, 5, and 12-32 are cancelled.
2. The claim rejections under 35 U.S.C. 112, first paragraph, for claims 2-4, 6-11, and 33-34 are withdrawn because Applicant's amendments and arguments are persuasive. The claim rejections under 35 U.S.C. 112, first second paragraph, for claims 2-4, 6-11, and 33-34 are withdrawn because Applicant's amendments and arguments are persuasive.

Claim Objections

3. Claims 2, 7, and 11 are objected to because of the following informalities:
 - a. Claim 2 contains a grammatical error. The phrase "outer periphery bent a V-shape" (lines 14-15) should read "outer periphery bent in a V-shape" in order to be grammatically correct;
 - b. Claim 7 contains a typographical error. The phrase "resign layer" in line 2 should read "resin layer";

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- c. Claim 11 contains an error. The phrase “having electrical conductivity [start new line] and the covering...” in lines 2-3 should read “having electrical conductivity, [start new line] and the covering...” for consistency purposes. If no comma is desired, then there should not be a new line started.

Appropriate correction is required.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory

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double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 2-4, 6, and 8-9 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 8, 10-11, and 13-14 of U.S. Patent No. 8,034,505. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim the following:

A fuel cell separator which is interposed between a plurality of electrolyte assemblies each constructed of an electrolyte layer containing an electrolyte medium and a catalytic electrode disposed on a surface in a thickness-wise direction of the electrolyte layer (instant application: claim 2; U.S. Patent No. 8,034,505: claim 1), the separator comprising:

A separating section for achieving separation between a fuel gas channel and an oxidizer gas channel (instant application: claims 2 and 6; U.S. Patent No. 8,034,505: claim 1); and

A sealing section disposed along an outer periphery of the separator for preventing leakage of fuel gas and oxidizer gas (instant application: claims 2 and 6; U.S. Patent No. 8,034,505: claim 1),

Wherein the separating section is formed of a metal sheet serving as a core member and a resin layer / synthetic resin-made coating layer formed on a surface of the flat metal sheet (instant application: claims 2 and 6; U.S. Patent No. 8,034,505: claims 1 & 8), where the resin layer is provided with the fuel gas channels or oxidizer gas channels (instant application: claim 2; U.S. Patent No. 8,034,505: claims 1 & 8),

Wherein on a surface of the resin layer is formed a high conductive layer having higher electrical conductivity than electrical conductivity of the resin layer (instant application: claims 2 and 3; U.S. Patent No. 8,034,505: claims 1, 8, 11, and 13-14),

Wherein the high conductive layer is formed at least in a region of the resin layer which is in contact with the electrolyte assembly (instant application: claim 4; U.S. Patent No. 8,034,505: claims 13-14),

Where a covering layer is formed on the metal sheet surface via an adhesive layer (instant application: claims 8-9; U.S. Patent No. 8,034,505: claim 10),

Wherein the sealing section is provided with a V-shaped sealing projection extending in parallel with a surface of the electrolyte assembly on which a catalytic electrode is formed, the sealing section having a vertex which is

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constituted so as to be brought into pressure-contact with the electrode assembly under a resilient force (instant application: claims 2 and 6; U.S. Patent No. 8,034,505: claim 1), and

Where the sealing projection has a V-shaped sectional profile when viewed from a direction perpendicular to a direction in which the fuel gas and the oxidizer gas flow (instant application: claims 2 and 6; U.S. Patent No. 8,034,505: claim 1).

While U.S. Patent No. 8,034,505 fails to claim that the sealing section is composed of a metal sheet and a resin layer formed on a surface of the metal sheet, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the sealing section of the separator be made of the same materials / configuration as the separation section of the separator in order to make manufacturing the separator easy and efficient.

Allowable Subject Matter

6. Claims 7, 10-11, and 33-34 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record, Reeder (US 6,040,076), Yamamoto et al. (JP 2001-093539), and Kaneko et al. (US 6,383,678), does not disclose, teach, or suggest alone or in any combination:

A fuel cell separator which is interposed between a plurality of electrolyte assemblies each constructed of an electrolyte layer containing an electrolyte medium and a catalytic electrode disposed on a surface in a thickness-wise direction of the electrolyte layer, the separator comprising: a separating section for achieving separation between a fuel gas channel and an oxidizer gas channel, and a sealing section disposed along an outer periphery of the separator for preventing leakage of fuel gas and oxidizer gas, wherein the separating section is composed of a metal sheet serving as a core member, and a resin layer formed on a surface of the metal sheet, the resin layer is provided with at least one of the fuel gas channel and the oxidizer gas channel, the sealing section is composed of the metal sheet and the resin layer formed on a surface of the metal sheet, the metal sheet having an outer periphery bent in a V-shape which corresponds to a sealing projection extending in parallel with a surface of the electrolyte assembly on which a catalytic electrode is formed, the sealing projection having a vertex which is constituted so as to be brought into pressure-contact with the electrolyte assembly under a resilient force, the sealing projection has the V-shaped sectional profile when viewed in a direction perpendicular to a direction in which the fuel gas and the oxidizer gas flow, and the sealing section is formed in a manner such that the vertex of the sealing projection does not extend beyond a position of contact with the electrolyte assembly in its assembled condition, wherein the high conductive layer is a thinner film than the resin layer and the high conductive layer being formed of carbon through spraying of a dispersion of carbon particles (claim 7), or

A fuel cell separator which is interposed between a plurality of electrolyte assemblies each constructed of an electrolyte layer containing an electrolyte medium and a catalytic electrode disposed on a surface in a thickness-wise direction of the electrolyte layer, the separator comprising: a separating section for achieving separation between a fuel gas channel and an oxidizer gas channel, and a sealing section disposed along an outer periphery of the separator for preventing leakage of fuel gas and oxidizer gas, wherein the separating section is composed of a metal sheet serving as a core member, and a resin layer formed on a surface of the metal sheet, the resin layer is provided with at least one of the fuel gas channel and the oxidizer gas channel, the sealing section is composed of the metal sheet and the resin layer formed on a surface of the metal sheet, the metal sheet having an outer periphery bent in a V-shape which corresponds to a sealing projection extending in parallel with a surface of the electrolyte assembly on which a catalytic electrode is formed, the sealing projection having a vertex which is constituted so as to be brought into pressure-contact with the electrolyte assembly under a resilient force, the sealing projection has the V-shaped sectional profile when viewed in a direction perpendicular to a direction in which the fuel gas and the oxidizer gas flow, and the sealing section is formed in a manner such that the vertex of the sealing projection does not extend beyond a position of contact with the electrolyte assembly in its assembled condition, wherein the metal sheet is covered with a covering layer formed on the metal sheet surface via an adhesive layer, wherein the adhesive layer is formed of triazinethiol or polyaniline diffused on the metal sheet surface (claim 10), or

A fuel cell separator which is interposed between a plurality of electrolyte assemblies each constructed of an electrolyte layer containing an electrolyte medium and a catalytic electrode disposed on a surface in a thickness-wise direction of the electrolyte layer, the separator comprising: a separating section for achieving separation between a fuel gas channel and an oxidizer gas channel, and a sealing section disposed along an outer periphery of the separator for preventing leakage of fuel gas and oxidizer gas, wherein the separating section is composed of a metal sheet serving as a core member, and a resin layer formed on a surface of the metal sheet, the resin layer is provided with at least one of the fuel gas channel and the oxidizer gas channel, the sealing section is composed of the metal sheet and the resin layer formed on a surface of the metal sheet, the metal sheet having an outer periphery bent in a V-shape which corresponds to a sealing projection extending in parallel with a surface of the electrolyte assembly on which a catalytic electrode is formed, the sealing projection having a vertex which is constituted so as to be brought into pressure-contact with the electrolyte assembly under a resilient force, the sealing projection has the V-shaped sectional profile when viewed in a direction perpendicular to a direction in which the fuel gas and the oxidizer gas flow, and the sealing section is formed in a manner such that the vertex of the sealing projection does not extend beyond a position of contact with the electrolyte assembly in its assembled condition, wherein the covering layer is formed of rubber or synthetic resin having electrical conductivity, and the covering layer includes an electrically conductive ink, the electrically conductive ink contains: a vehicle composed of thermosetting monomer or thermosetting oligomer for forming the rubber

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or synthetic resin, and an electrically conductive filler composed of a metal compound or carbon-based material (claim 11), or

A fuel cell separator which is interposed between a plurality of electrolyte assemblies each constructed of an electrolyte layer containing an electrolyte medium and a catalytic electrode disposed on a surface in a thickness-wise direction of the electrolyte layer, the separator comprising: a separating section for achieving separation between a fuel gas channel and an oxidizer gas channel, and a sealing section disposed along an outer periphery of the separator for preventing leakage of fuel gas and oxidizer gas, wherein the separating section is composed of a metal sheet serving as a core member, and a resin layer formed on a surface of the metal sheet, the resin layer is provided with at least one of the fuel gas channel and the oxidizer gas channel, the sealing section is composed of the metal sheet and the resin layer formed on a surface of the metal sheet, the metal sheet having an outer periphery bent in a V-shape which corresponds to a sealing projection extending in parallel with a surface of the electrolyte assembly on which a catalytic electrode is formed, the sealing projection having a vertex which is constituted so as to be brought into pressure-contact with the electrolyte assembly under a resilient force, the sealing projection has the V-shaped sectional profile when viewed in a direction perpendicular to a direction in which the fuel gas and the oxidizer gas flow, and the sealing section is formed in a manner such that the vertex of the sealing projection does not extend beyond a position of contact with the electrolyte assembly in its assembled condition, wherein the metal sheet is composed of a single metal sheet (claims 33-34).

Response to Arguments

Claim Rejections - 35 USC § 112

7. The claim rejections under 35 U.S.C. 112, first paragraph, for claims 2-4, 6-11, and 33-34 are withdrawn because Applicant's amendments and arguments are persuasive. The claim rejections under 35 U.S.C. 112, first second paragraph, for claims 2-4, 6-11, and 33-34 are withdrawn because Applicant's amendments and arguments are persuasive.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CLAIRE L. ROE whose telephone number is (571)272-9809. The examiner can normally be reached on Monday-Friday 9:30AM - 5:30PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Barbara Gilliam can be reached on 571-272-1330. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. L. R./
Examiner, Art Unit 1727

/Barbara L. Gilliam/
Supervisory Patent Examiner, Art Unit 1727